

What is claimed is:

1. A method comprising:

downloading a call service component to a call
controller; and

5 using the call service component to support
telecommunication traffic to or from a gateway under
control of the call controller.

2. The method of claim 1 including dynamically

10 downloading the call service component when a network
carrier turns on a service, corresponding to the call
service component, for a particular user area.

3. The method of claim 2 including dynamically removing

15 the call service component from the call controller.

4. The method of claim 1 wherein the call service
component uses a half-call model that views a call either
as an originating or a terminating segment of the call.

20

5. The method of claim 4 including downloading the call
service component from a central repository.

6. The method of claim 4 wherein each segment of the call handles service and access protocols according to a previously downloaded call service component with which the segment is associated.

5

7. The method of claim 4 wherein each call service component comprises a wrapper surrounding a set of core functions, wherein the wrapper supports dynamic downloading of the component to the call controller.

10

8. The method of claim 1 wherein downloading the call service occurs while the call controller is operational and supporting live traffic, the call service being downloaded without disrupting the live traffic.

15

9. The method of claim 1 wherein the call service component comprises an application component for implementing call behavior.

20

10. The method of claim 1 wherein the call service component comprises a resource component for providing access to telephony resources by an application component that implements call behavior.

11. The method of claim 4 including establishing a call having an originating segment that uses the call service component downloaded to the call controller.

5 12. The method of claim 11 wherein the call service component downloaded to the call controller represents a first call type, and wherein the call has a terminating segment that represents a different call type.

10 13. The method of claim 4 including establishing a call having a terminating segment that uses the call service component downloaded to the call controller.

14. The method of claim 13 wherein the call service
15 component downloaded to the call controller represents a first call type, and wherein the call has an originating segment that represents a different call type.

15. A telecommunication system comprising:
20 a repository of call service components;
a call controller; and
a gateway under control of the call controller;
wherein the call controller is configured for:

downloading a call service component from the repository; and

using the call service component to support telecommunication traffic to or from the gateway.

5

16. The system of claim 15 including a telecommunications network, wherein the call controller is configured for dynamically downloading the call service component when a network carrier turns on a service, corresponding to the call service component, for a particular user area in the network.

17. The system of claim 16 wherein the call controller is configured for dynamically removing the call service component when the network carrier shuts off the service corresponding to the call service component for the particular user area in the network.

18. The system of claim 15 wherein each call service component uses a half-call model that views a call either as an originating or a terminating segment of the call.

19. The system of claim 18 each segment of the call handles service and access protocols according to a

previously downloaded call service component with which the segment is associated.

20. The system of claim 18 wherein each call service
5 component comprises a wrapper surrounding a set of core functions, wherein the wrapper supports dynamic downloading of the component to the call controller.

21. The system of claim 18 wherein the call controller is
10 configured for downloading the call service while the call controller is operational and supporting live traffic, the call service being downloadable without disrupting the live traffic.

22. The system of claim 15 wherein the call service
15 components stored in the repository that can be downloaded to the call controller comprise application components for implementing call behavior and resource components for providing access to telephony resources by the application
20 components.

23. An article comprising a computer-readable medium storing computer-readable instructions for causing a computer system to:

download a particular call service component from a repository of call service components; and

use the particular call service component to support telecommunication traffic to or from a gateway under

5 control of a call controller.

24. The article of claim 23 including instructions for causing the computer system to dynamically download the call service component when a network carrier turns on a
10 service corresponding to the particular call service component for a particular user area.

25. The article of claim 24 including instructions for causing the computer system to dynamically remove the
15 particular call service component when the network carrier shuts off the service corresponding to the particular call service component for the particular user area in the network.

20 26. The article of claim 23 wherein each call service component uses a half-call model that views a call either as an originating or a terminating segment of the call.

27. The article of claim 23 wherein each segment of the call handles service and access protocols according to a previously downloaded call service component with which the segment is associated.

5

28. The article of claim 23 wherein each call service component comprises a wrapper surrounding a set of core functions, wherein the wrapper supports dynamic downloading of the component from the repository.

10

29. The article of claim 23 including instructions for causing the computer system to download the particular call service while the call controller is operational and supporting live traffic, the call service being downloaded without disrupting the live traffic.

15

30. The article of claim 23 wherein the particular call service component comprises an application component for implementing call behavior.

20

31. The article of claim 30 wherein the particular call service component comprises a resource component for providing access to telephony resources by an application component that implements call behavior.

10

10